DOCUMENT RESUME

ED 240 445 CG 017 275

AUTHOR Amabile, Teresa M.
TITLE Motivation and Creativity: Effects of Motivational Orientation on Creative Writers.
PUB DATE Aug 83
NOTE 23p.; Paper presented at the Annual Convention of the American Psychological Association (91st, Anaheim, CA, August 26-30, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Students; *Creative Writing; Creativity; Higher Education; *Individual Characteristics; Individual Needs; Motivation; Perception; *Performance Factors; Predictor Variables; Psychological Characteristics
IDENTIFIERS *Intrinsic Motivation

ABSTRACT

This study directly tested the hypothesis that intrinsic motivation is conducive to creativity and extrinsic motivation is detrimental. Chosen because they identified themselves as actively involved in creative writing, 72 young adults participated in individual laboratory sessions where they were asked to write two brief poems. Before writing the second poem, subjects in an intrinsic orientation condition completed a questionnaire that focused on intrinsic reasons for being involved in writing. Subjects in an extrinsic orientation condition completed a questionnaire that focused on extrinsic reasons. Those in a control condition were not given a questionnaire on reasons for writing. Although there were no initial differences in the first poems written, there were significant differences in the creativity of the poems written after the experimental manipulations. Poems written under an extrinsic orientation were significantly less creative than those written in the other two conditions. Implications for social-psychological and individual-difference conceptions of creativity are discussed. (Author)

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ED240445

Motivation and Creativity:
Effects of Motivational Orientation on Creative Writers

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Several people provided valuable assistance in the conduct of this research. Anne Sandoval helped in all stages of planning, subject recruitment, data collection, and data analysis. Marjorie Flacks, Marlene Finn, and Robin Mautner served as additional experimenters. Barbara Grossman assisted in data coding. Special thanks are due Robert Kidd and the creative writing faculties of Boston University and Brandeis University for their assistance in subject recruitment. Finally, William DeJong offered helpful comments on an early draft of the manuscript.

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Running head: Creative Writers

Presented at the 91st Annual Convention of the American Psychological Association, Anaheim, California, August 1983.

Abstract

This study directly tested the hypothesis that intrinsic motivation is conducive to creativity and extrinsic motivation is detrimental. Chosen because they identified themselves as actively involved in creative writing, 72 young adults participated in individual laboratory sessions where they were asked to write two brief poems. Before writing the second poem, subjects in an Intrinsic Orientation condition completed a questionnaire that focused on intrinsic reasons for being involved in writing. Subjects in an Extrinsic Orientation condition completed a questionnaire that focused on extrinsic reasons. Those in a control condition were not given a questionnaire on reasons for writing. Although there were no initial differences between conditions on prior involvement in writing or on creativity of the first poems written, there were significant differences in the creativity of the poems written after the experimental manipulations. Poems written under an extrinsic orientation were significantly less creative than those written in the other two conditions. Implications for social-psychological and individual-difference conceptions of creativity are discussed.

Motivation and Creativity:
Effects of Motivational Orientation on Creative Writers

One fruitful starting point for research on creativity is the experience of people who are widely recognized for their creative work. In a desperate attempt to understand her persistent writer's block, the poet Sylvia Plath analyzed the problem as caused by an excessive concern with external recognition of her work: [...] editors and publishers and critics and the World, [...] I want acceptance there, and to feel my work good and well-taken. Which ironically freezes me at my work, corrupts my nunnish labor of work-for-itself-as-its-own-reward," (Hughes & McCullough, 1982, p. 305). Plath seems to have realized that her most creative work could only be produced if she approached writing with an intrinsic orientation -- a desire to do the work for its own sake.

This notion is stated somewhat more formally in the intrinsic motivation hypothesis of creativity: an intrinsically motivated state is conducive to creativity, whereas an extrinsically motivated state is detrimental (Amabile, in press). People are said to be intrinsically motivated to engage in a particular task if they view their task engagement as motivated primarily by their own interest and involvement in the task. By contrast, people are said to be extrinsically motivated to engage in a task if they view their task engagement as motivated primarily by external goals such as the promise of reward or the expectation of evaluation. Self-perception theory (Bem, 1972) proposes that intrinsic motivation can be undermined by the imposition of salient extrinsic constraints on performance. Specifically, people who engage in an intrinsically

interesting activity in the presence of salient extrinsic constraints will show less subsequent interest in that task than people who do not work under such constraints. This "overjustification hypothesis" has been confirmed in several studies examining constraints as diverse as rewards for work (Deci, 1972; Lepper, Greene, & Nisbett, 1973), surveillance (Greene & Lepper, 1974), and deadlines (Amabile, DeJong, & Lepper, 1976); in all cases, subsequent intrinsic interest was undermined by socially-imposed constraints.

According to a componential conceptualization of creativity (Amabile, in press), extrinsic constraints can influence not only subsequent interest, but also aspects of immediate performance -- specifically, aspects of performance related to creativity. This conceptualization includes three components as essential for creativity: domain-relevant skills, creativity-relevant skills, and task motivation. Creativity-relevant skills operate at the most general level; they include heuristics for generating creative ideas, as well as cognitive styles, working styles, and personality traits. Domain-relevant skills are somewhat more specific; they include knowledge about and experience in the task domain, special technical skills required for work in the domain, and domain-specific talents. Task motivation is the most narrowly specific component, since it can vary importantly from one task in a domain to another. An individual can have an intrinsic orientation toward one task in a particular domain (such as painting a scene that has special emotional significance to the artist) and an extrinsic orientation toward a seemingly similar task in the same domain (such as painting a commissioned portrait). According to the componential

conceptualization, the higher the level of domain-relevant skills, creativity-relevant skills, and intrinsic task motivation, the higher the final level of creativity in a given product.

Several studies have demonstrated that extrinsic constraints can undermine creativity. In one, for example, women who did artwork under the expectation of external evaluation produced work that was judged by artists as lower in creativity than that produced by women who did not expect evaluation (Amabile, 1979). This effect of evaluation was replicated with both artistic and verbal creativity; in addition, results on artistic creativity suggested possible undermining effects of surveillance during work (Amabile, Goldfarb, & Brackfield, Note 1). Competition for prizes (Amabile, 1982a) and restricted choice in task engagement (Amabile & Gitomer, Note 2) can have similarly negative effects on creative performance. Finally, a number of investigators have studied the effects of expected reward on creativity. Kruglanski, Friedman, & Zeevi (1971) found that high school students who expected rewards for their work wrote less creative stories and story titles than did students who simply volunteered to do the work. Hennessey (Note 3) demonstrated that children tell less creative stories if they have contracted for a reward for their work than if they are simply asked to tell the stories. And McGraw and McCullers (1979) found that adults working for money take longer to break set on Luchins's water jar problems, and make more errors in solving the set-breaking problems, than do adults not working for reward.

Despite obvious differences in the constraints of reward, evaluation, surveillance, competition, and restriction of choice, according to self-perception theory, they should all serve to induce

an extrinsic motivational orientation toward the task in question. And, according to the intrinsic motivation hypothesis of creativity, this extrinsic orientation should be detrimental to creativity. Thus, motivational orientation may be the mechanism by which a variety of social factors influence creativity. In addition, motivational orientation toward a task may be an important variable in its own right. People who generally approach their work with an intrinsic orientation may be more consistently creative than people who adopt an extrinsic orientation. Despite its potential importance, the effect of motivational orientation on creativity has not been directly studied.

Although many theorists have used the concept in their work, it is difficult to find definitions of motivational orientation. Harter (1978, 1981) has proposed that five aspects of classroom learning are indicative of intrinsic or extrinsic motivational orientations in young children: (1) learning motivated by curiosity versus learning in order to please the teacher; (2) incentive to work for one's own satisfaction versus working to please the teacher and get good grades; (3) preference for challenging work versus preference for easy work; (4) desire to work independently versus dependence on the teacher for help; and (5) internal versus external criteria for determining success or failure. Pittman and his colleagues (Pittman, Emery, & Boggiano, 1982) present a similar conceptualization of motivational orientation:

> When an individual adopts an intrinsic motivational orientation, features such as novelty, complexity, challenge, and the opportunity for

> mastery experiences are sought and preferred. These qualities are usually present in some form during enjoyable play, entertainment, or leisure time periods. [...]
>
> When an individual adopts an extrinsic motivational orientation, features such as predictability and simplicity are desirable, since the primary focus associated with this orientation is to get through the task expediently in order to reach the desired goal [...]. These kinds of preferences and concerns are common when an activity is approached as a job, duty, or necessary evil. (pp. 790-191)

As described earlier, most studies on motivational orientation have approached the construct indirectly, by varying social constraints that, theoretically, are proposed to influence motivational state. There are two previous studies, however, that did attempt to directly influence motivational orientation without the intervention of some social constraint. In the first of these, (Salancik, Note 4), housewives were asked to rank-order a list of reasons for conserving energy. Two types of lists were used; the reasons were either entirely intrinsic (e.g., I found it was more enjoyable to do things with less energy), or they were entirely extrinsic (e.g., The cost of using energy had increased to a point where I found it necessary to cut my consumption down). The underlying assumption in this technique is that, although particular rank-orderings of the reasons are unimportant, the act of reading, concentrating on, and applying to oneself the extrinsic or intrinsic

reasons for task activity can make that particular motivational orientation salient or temporarily induce that orientation. This procedure, apparently, was successful in directly inducing either an intrinsic or an extrinsic orientation toward energy conservation. Those women who had rank-ordered the intrinsic items later expressed more intentions to continue conserving energy than did women who had rank-ordered the extrinsic items.

Using a similar procedure, Seligman, Fazio, and Zanna (1980) had the individual members of dating couples rank-order either intrinsic reasons for dating their partner (e.g., I go with _____ because we always have a good time together) or extrinsic reasons (e.g., I go out with _____ because my friends think more highly of me since I began seeing her/him.) It was predicted, on the basis of self-perception theory (Bem, 1972), that if subjects attribute their interest in their dating partner to intrinsic reasons, they should experience themselves as being more in love than if they attribute their interest to extrinsic reasons. These predictions were strongly confirmed. Subjects who rank-ordered extrinsic reasons for dating expressed lower levels of love for their partner than did subjects in the intrinsic condition. Moreover, extrinsic subjects rated marriage to the dating partner as significantly less likely.

The present study adapted this technique for the direct induction of an intrinsic or extrinsic motivational orientation toward creative work. Here, subjects rank-ordered intrinsic or extrinsic reasons for doing creative writing, or they were given no reasons to consider. Then, they were all asked to write a brief poem. It was predicted that concentrating on intrinsic reasons would induce an intrinsic

orientation toward writing and, as a consequence, a high level of creativity in the poem. By contrast, concentrating on extrinsic reasons should induce an extrinsic orientation and a low level of creativity. Unlike previous studies of task motivation and creativity, then, the present study attempted to directly influence subjects' motivational orientations toward their work. In addition, whereas previous studies examined effects of social constraints on the creativity of "ordinary" individuals, this study investigated motivational effects on the creativity of people who are actively involved in a creative pursuit -- the writing of poetry, fiction, or drama.

Method

Subject Selection

Subjects were recruited primarily at Brandeis University and Boston University, with advertisements such as this: "Writers: If you are involved in writing, especially poetry, fiction, or drama, you can make three dollars for about an hour of your time. We are studying people's reasons for writing." In addition, direct appeals for subjects were made in the creative writing courses at those universities. Most of the respondents were undergraduate or graduate students in English or creative writing, although some were not affiliated with any university.

All those who responded to the request for subjects were given a preliminary questionnaire on their involvement in writing. This questionnaire asked for demographic information, as well as information on the individual's enrollment in advanced writing courses (range = 0 - 7, M = 1.56), number of poems published (range = 0 - 17, M = 3.80), number of fiction pieces published (range = 0 - 10, M =

1.74), number of dramatic works produced (range = 0 - 2, M = .21), and average number of hours per week spent in writing poetry, fiction, or drama (range = 3 - 18, M = 6.30). Clearly, these respondents, as a group, were heavily involved in creative writing.

In addition, a question asked subjects to "give other information on your involvement in writing." Responses to this question were rated by three judges on the extent to which an extrinsic or an intrinsic orientation toward writing was exhibited.

To be chosen for participation in the study, subjects were required to fulfill at least one of four criteria: (1) completion of one or more advanced creative writing courses; (2) publication of one or more works of poetry; (3) publication of one or more works of fiction or drama; or (4) spending an average of four or more hours of their own time per week in writing poetry or fiction. In addition, subjects were eliminated from consideration if they fell more than two standard deviations above the mean on any of the measures or on age.

Information from the preliminary questionnaire was also used as a basis for checking on the initial equivalence of writing experience in the three experimental groups. Of the items dealing with previous experience, two were considered most likely to influence the creativity of subjects' poems -- number of pieces of poetry published and number of hours per week spent writing. These items had standard deviations approximately six times those of most of the other items. This weighting of the two major items was allowed to stand; the weightings of the other items were adjusted until they were equal to each other and to one-sixth of the weightings of each of the major items. The weighted scores for each subject were then summed into an

overall "writing involvement" prescore.

Subjects were randomly assigned to the conditions of the experiment -- Control, Intrinsic Orientation, and Extrinsic Orientation -- within certain restrictions. First, there were approximately equal numbers of males and females in the conditions. Second, each of the four female experimenters ran an approximately equal number of subjects in each condition. Finally, means and variances on the prescores were approximately equal in the three conditions (although there was no matching at the level of subjects). There were 24 subjects in the intrinsic condition, 23 in the extrinsic condition, and 25 in the control condition.

Pretesting of Intrinsic/Extrinsic Items

An initial list of 30 reasons for writing was presented to 20 undergraduates at Brandeis University. These students were asked to identify each reason as intrinsic, extrinsic, or neither/both, according to these instructions:

> An intrinsic reason is one that focuses on the person's interest in and enjoyment of writing for its own sake, for the pleasure of the actual writing. An extrinsic reason is one that focuses on the external things a person can get by writing, the tangible and intangible rewards from other people. An intrinsically motivated person is self-motivated, and would write even in the absence of external goals or pressures. An extrinsically motivated person is motivated by other sources, by external goals and pressures.

These pretest subjects consistently identified seven of the reasons as intrinsic (with no more than two dissenting votes):

-- You get a lot of pleasure out of reading something good that you have written.

-- You enjoy the opportunity for self-expression.

-- You achieve new insights through your writing.

-- You derive satisfaction from expressing yourself clearly and eloquently.

-- You feel relaxed when writing.

-- You like to play with words.

-- You enjoy becoming involved with ideas, characters, events, and images in your writing.

Seven other reasons were consistently rated as extrinsic:

-- You realize that, with the introduction of dozens of magazines every year, the market for freelance writing is constantly expanding.

-- You want your writing teachers to be favorably impressed with your writing talent.

-- You have heard of cases where one bestselling novel or collection of poems has made the author financially secure.

-- You enjoy public recognition of your work.

-- You know that many of the best jobs available require good writing skills.

-- You know that writing ability is one of the major criteria for acceptance into graduate school.

-- Your teachers and parents have encouraged you to go into writing.

Procedure

Subjects participated in the study individually. When they arrived at the laborabory, the experimenter explained that the study was designed to examine reasons for being involved in writing. At no time during subject recruitment or during this initial introduction was "creativity" or "creative writing" mentioned. As a further check on the initial equivalence of creativity skills in the three groups, subjects were asked to write a Haiku-style poem at the outset of the experimental session. This poetry-writing task, used in previous creativity studies (cf. Amabile, 1982b), was designed to present subjects with a clearly delimited format for verbal responses, in order to reduce wide individual difference variation and in order to simplify creativity assessments of the final products. At the same time, however, the format was sufficiently open-ended to allow for considerable variability in responses.

The instructions presented to subjects asked them to write a simple form of unrhymed poetry consisting of five lines: line 1 is a single noun; line 2 consists of two adjectives describing the noun; line 3 consists of three verb forms relating to the noun; line 4 contains any number of words (a phrase or sentence about the noun); and line 5 repeats the noun of line 1. For the poem they wrote at the beginning of the experimental session, subjects were given "Snow" as the first (and last) line. As with the poetry task itself, this uniform theme was used in an effort to reduce variability and simplify creativity assessment.

Following this, all subjects were given a short story to read (John Irving's "The Pension Grillparzer"). Control-group subjects read the story for 15 minutes and then completed a questionnaire on their impressions of the story. Experimental-group subjects, however, read the story for only 10 minutes before completing the questionnaire. For the following five minutes, they completed the "Reasons for Writing" questionnaire for their condition. This questionnaire included a brief introduction explaining that the subject was to rank-order the list of reasons for writing that appeared therein, in order of their personal importance to the subject. So that subjects would not feel unduly constrained by the limited list they were given, the instructions stated that, certainly, all possible reasons for writing were not included here. It was made clear that these were simply the reasons of most immediate interest for the purposes of the experiment. Depending on the subject's condition, the list consisted of the seven intrinsic reasons or the seven extrinsic reasons that had been chosen on the basis of pretesting.

Finally, all subjects wrote a second poem on the theme of "Laughter." This poem, which was identical in format to the first, provided the crucial dependent measure of creativity. To ensure that the extrinsic manipulation had no long-lasting detrimental effects, all extrinsic-condition subjects were given the intrinsic questionnaire after completion of the second poem. In addition, all subjects were given a thorough "process" debriefing (Ross, Lepper, & Hubbard, 1975).

Creativity Assessment

Using a technique developed in previous research (Amabile, 1982b), the poems written by subjects in this experiment were rated on creativity by 12 poets. Each of these judges had been actively involved in writing poetry for at least three years; several had had their writings published. Working independently, they began by reading each of the 72 "Snow" poems and the 72 "Laughter" poems. They were then asked to use their own subjective definitions of creativity to rate the poems, relative to each other, on a 40-point scale of creativity. Each judge rated the poems in a different random order.

The Spearman-Brown reliability of these creativity assessments was .82 for the "Snow" poems and .78 for the "Laughter" poems, both of which are comparable to the high levels of reliability found in previous uses of this technique (Amabile, 1982b). Thus, the 12 ratings for each poem were summed to yield an overall creativity score.

Results and Discussion

As expected, there were no overall differences between conditions on the creativity of the initial poems ("Snow") that subjects wrote: control, $\underline{M}$ = 18.18; intrinsic, $\underline{M}$ = 18.76; extrinsic, $\underline{M}$ = 18.19 ($\underline{F} < 1$). On the poem written after the independent variable manipulation ("Laughter"), however, there was a statistically significant effect of condition. The creativity of subjects in both the control condition and the intrinsic condition was fairly high, and comparable to the levels of creativity shown in the initial poems ($\underline{M}$ = 18.78 and $\underline{M}$ = 19.88, respectively). The creativity of subjects in the extrinsic condition, however, was markedly lower ($\underline{M}$ = 15.74). The

overall effect of condition was statistically significant (F (2, 69) = 4.66, $p < .013$).

Individual paired-comparisons between conditions confirm that the locus of the effect in this study is in the lowered creativity of subjects in the extrinsic orientation condition. No paired comparisons revealed differences between conditions on the initial poems written (all t's < 1). And the difference between the control condition and the intrinsic orientation condition on the second poem was not significant. The differences between the extrinsic condition and the other two conditions, however, were statistically significant (control, t (46) = 2.30, $p < .05$; intrinsic, t (45) = 2.94, $p < .01$). Moreover, while the increases in creativity from the first poem to the second in the control and intrinsic conditions were not statistically meaningful, the decrease in creativity in the extrinsic condition was significant (t (22) = 2.20, $p < .05$).

Clearly, concentrating on extrinsic reasons for creative writing did result in a temporary decrease in creativity, as predicted. There is no strong evidence, however, that concentrating on intrinsic reasons for writing caused a temporary increase in creativity. Perhaps the slight and statistically insignificant improvement in creativity from the first poem to the second in the intrinsic condition should not be surprising, however, given the high level of intrinsic involvement that these subjects already showed in their writing. Indeed, this result parallels that obtained by Seligman, Fazio, and Zanna (1980) in their study of motivational orientation effects on romantic love. There, subjects in a control condition, who did not rank-order any reasons for dating their partners, scored very close to the intrinsic-condition subjects on the dependent measures of

love. Seligman and his colleagues interpret this result as indicating that the subjects' "natural cognitive set" toward their dating partners was intrinsic. It is likely that, in the present study, the creative writers' "natural cognitive set" toward writing was already highly intrinsic. Future research should be directed toward investigating the possibility that intrinsic cognitive sets might lead to real increases in the creativity of individuals who do not begin with particularly high levels of intrinsic motivation.

Given the initially high levels of interest and involvement that these writers showed in their work, the decrease in creativity in the extrinsic condition is particularly impressive. Although the effects of the extrinsic manipulation would only be expected to be temporary, it is nonetheless startling that spending barely five minutes reading and ranking extrinsic reasons for writing could have a significant impact on the creativity of creative writers.

These results add considerable strength to the intrinsic motivation hypothesis of creativity. They demonstrate that, even in the absence of specific extrinsic constraints, creativity may be undermined if extrinsic goals are simply made salient to people. This research also has theoretical implications for understanding the nature of intrinsic and extrinsic motivation. Since the seven extrinsic reasons for writing were so effective in undermining the creativity of writers in the extrinsic condition, the content of those reasons may provide important information on the phenomenology of extrinsic orientations toward work. Those reasons appear to fall into four general categories: (1) tangible rewards for writing (an expanding freelance writing market; bestselling authors as financially

secure); (2) external evaluation of writing (impressing writing teachers favorably; enjoying public recognition of work); (3) external direction of work (teachers and parents encouraged a writing career); and (4) writing as a means to extrinsic ends (getting a good job; getting into graduate school). The results of this study suggest that a concentration on these classes of motivations is much less conducive to creative performance than a concentration on motivations that focus instead on the intrinsic rewards of writing.

If, as some theorists have suggested (e.g., Harter, 1978, 1981; Pittman, Emery, & Boggiano, 1982), motivational orientation may be a relatively enduring individual difference, this study has relevance for both a personality psychology and a social psychology of creativity. It appears that even brief, socially-induced extrinsic orientations can undermine creativity. Given this, enduring extrinsic orientations toward work should inhibit creativity, while enduring intrinsic orientations should enhance it. Motivational orientation, then, might be an important addition to individual-difference studies of creativity.

Practically, this research has implications for socialization, educational techniques, and working environments. To the extent that parents, teachers, and work supervisors model and express approval of intrinsic motivational statements about work, intrinsic orientations and creativity should be fostered. By contrast, to the extent that extrinsic statements are modeled and extrinsic constraints on work are made salient, extrinsic orientations should be fostered and creativity should be undermined. Besides the modeling and direct induction of motivational orientations, self-instruction may also be effective in influencing motivational state (cf. Mahoney & Thoresen, 1974). This

latter possibility could be useful in programs designed to directly enhance creativity.

Reference Notes

1. Amabile, T. M., Goldfarb, P., & Brackfield, S. C. Effects of social facilitation and evaluation on creativity. Unpublished manuscript, Brandeis University, 1982.

2. Amabile, T. M., & Gitomer, J. Children's artistic creativity: Effects of choice in task materials. Unpublished manuscript, Brandeis University, 1982.

3. Hennessey, B. Effects of reward and task label on children's creativity in three domains. Unpublished manuscript, Brandeis University, 1982.

4. Salancik, G. Retrospective attribution of past behavior and commitment to future behavior. Unpublished manuscript, University of Illinois, 1975.

References

Amabile, T. M. Effects of external evaluation on artistic creativity. Journal of Personality and Social Psychology, 1979, 37, 221-233.

Amabile, T. M. Children's artistic creativity: Detrimental effects of competition in a field setting. Personality and Social Psychology Bulletin, 1982a, 8, 573-578.

Amabile, T. M. Social psychology of creativity: A consensual assessment technique. Journal of Personality and Social Psychology, 1982b, 43, 997-1013.

Amabile, T. M. Social psychology of creativity: A componential conceptualization. Journal of Personality and Social Psychology, in press.

Amabile, T. M., DeJong, W., & Lepper, M. Effects of externally imposed deadlines on subsequent intrinsic motivation. Journal of Personality and Social Psychology, 1976, 34, 92-98.

Bem, D. Self-perception theory. In L. Berkowitz (Ed.), Advances in experimental social psychology (vol. 6). New York: Academic Press, 1972.

Deci, E. The effects of contingent and noncontingent rewards and controls on intrinsic motivation. Organizational Behavior and Human Performance, 1972, 8, 217-229.

Greene, D., & Lepper, M. Effects of extrinsic rewards on children's subsequent intrinsic interest. Child Development, 1974, 45, 1141-1145.

Harter, S. Effectance motivation reconsidered: Toward a developmental model. Human Development, 1978, 21, 34-64.

Harter, S. A new self-report scale of intrinsic versus extrinsic orientation in the classroom. Developmental Psychology, 1981, 17, 300-312.

Hughes, T., & McCullough, F. (Eds.), The journals of Sylvia Plath. New York: Dial, 1982.

Kruglanski, A. W., Friedman, I., & Zeevi, G. The effects of extrinsic incentive on some qualitative aspects of task performance. Journal of Personality, 1971, 39, 606-617.

Lepper, M., Greene, D., & Nisbett, R. Undermining children's intrinsic interest with extrinsic rewards: A test of the "overjustification" hypothesis. Journal of Personality and Social Psychology, 1973, 28, 129-137.

Mahoney, M., & Thoresen, C. (Eds.), Self-control: Power to the person. Monterey: Brooks/Cole, 1974.

McGraw, K., & McCullers, J. Evidence of a detrimental effect of extrinsic incentives on breaking a mental set. Journal of Experimental Social Psychology, 1979, 15, 285-294.

Pittman, T. S., Emery, J., & Boggiano, A. K. Intrinsic and extrinsic motivational orientations: Reward-induced changes in preferences for complexity. Journal of Personality and Social Psychology, 1982, 42, 789-797.

Ross, L., Lepper, M., & Hubbard, M. Perseverance in self perception and social perception: Biased attributional processes in the debriefing paradigm. Journal of Personality and Social Psychology, 1975, 32, 880-892.

Seligman, C., Fazio, R. H., & Zanna, M. P. Effects of salience of extrinsic rewards on liking and loving. Journal of Personality and Social Psychology, 1980, 38, 453-460.